

Dear Ms. Aubrey:

Your report on NPR about the finding that organic milk has more Omega-3 fatty acids tended to misrepresent the real findings of the study in favor of a quick conclusion that "But for people who are still milk drinkers, this study suggests that, yes, there is a benefit in choosing organic in terms of boosting Omega-3 intake." I know the sentence says "suggests," but the general reader won't see that. They will read "there is a benefit."

If you read the paper (generally good science and an interesting perspective), then you learn that, yes, from a science point of view, milk from cows that eat pasture IN THE SUMMER is higher in Omega-3 fatty acids than milk from cows not on pasture. Since cows on organic farms must be on pasture for at least a portion of the year and for a portion of their total feed intake (minimum 120 days per year; 30 percent of what they eat), organic milk sources IN THE SUMMER will be higher in Omega-3 fatty acids. That's what the data show. The data do NOT, however, answer two subsequent questions that are germane to the simplified headlines this story has wrought that organic (whole) milk is better for you than conventional (whole) milk.

1. Does the 62 percent increase in Omega-3 fatty acids in organic milk (I will use the term here instead of the more accurate "milk from summer-pastured cows") rather than conventional milk contribute substantially to the Omega-3 content of a typical diet? Recommendations for daily intake of ALA (the principle Omega-3 fatty acid) for young adult women are something like 1.1 grams per day. If trying to achieve that intake, one could consume 15 pints of conventional whole milk or 9 pints (a bit more than a gallon) of organic whole milk per day (or 0.4 teaspoon of flaxseed oil). For the lesser but important EPA/DHA fatty acids, a recommended daily intake is 250 mg per day. For this, one would need to consume 9 pints of conventional whole milk or 7 pints of organic whole milk (or 1/2 teaspoon of fish oil, depending on the fish). So, does organic milk have more of these Omega 3-fatty acids? Yes. Is organic milk (IN THE SUMMER) likely to get you a lot further toward the recommended intakes? No. Better to put a little flaxseed oil on your salad and take a fish oil capsule.

2. Even if you ignored the information in No. 1 and said that drinking organic milk would give you an important boost in Omega-3 fatty acid intake, does that boost make a real difference in health outcomes? Absolutely no data for that question.

As a culture, there is a strong desire to believe that "organic" foods are somehow healthier. The science in the study found a real difference (statistically significant) but did not establish that the difference is important. The concluding hypothesis (not demonstrated fact) proposed by the authors was that American diets might be improved if we did three interconnected things: reduce Omega-6 fatty acids in the diet (the biggest impact), increase whole milk consumption and, finally, drink whole organic milk if it is summertime (which would be the smallest effect of the total proposal). This proposal is a long way from concluding that organic milk is better for you in any significant way.

For those of us who summarize scientific findings, we increasingly face the challenge of helping lay people understand the difference between "statistical difference" (science is pretty sure the difference is real) and "practical importance" (the difference is important in day-to-day terms). Addressing that challenge is the purview of scientists and educators and also of journalists.

Thank you for hearing me out.

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